

**Abstract**

This invention relates to methods and compositions for modulating movement of eukaryotic cells with migratory capacity. More specifically, the invention relates to methods and compositions for modulating movement of CaR receptor expressing cells of hematopoietic, neural, epithelial, endothelial, or mesenchymal origin, in a specific site in a subject. The foregoing are useful, *inter alia*, in the treatment of conditions characterized by a need to modulate migratory-cell movement associated with specific sites in a subject. Specific sites include sites of inflammation and modulation of migratory-cell movement is movement away from an agent source, or repulsion. The invention also relates to methods for manipulating hematopoietic progenitor cells and related products. In particular the invention includes methods and products for using CaR receptor-related compositions to enhance mobilization of hematopoietic progenitor cells, to improve the efficiency of targeting cells to the bone marrow, and/or to modulate hematopoietic progenitor cell function.